

CLAIMS

1. An inorganic pigment, the pigment comprising a compound which is an oxysulphide or oxyselenide of tin and a metal chosen from niobium or tantalum.

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2. A pigment according to claim 1 comprising a compound of the formula:



10 wherein A is S or Se; wherein M is Nb or Ta; wherein $1.0 \leq x \leq 2.0$; and wherein $0 < y \leq 0.6$.

3. A pigment according to claim 1, comprising a compound of the formula $\text{Sn}_x\text{M}_{z-z}\text{M}'_z\text{O}_{7-y}\text{A}_y$, where A, M, x and y are as defined in claim 2, M' is a dopant element
15 and $0 < z \leq 2.0$.

4. A pigmented composition, the composition comprising a substrate matrix and a pigment, wherein the pigment comprises a compound which is an oxysulphide or oxyselenide of tin and a metal chosen from niobium or tantalum.

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5. A composition according to claim 4, wherein the substrate matrix comprises at least one glass component.

6. A composition according to claim 5, wherein the at least one glass component is
25 a low melting glass enamel frit.

7. A composition according to any of claims 4 to 6, wherein the pigment comprises from 1 to 50 wt% of the composition.

30 8. A composition according to any of claims 5 to 7 in the form of a glass frit, an enamel, a glass sheet or a glass article.

9. A composition according to claim 4, wherein the substrate matrix comprises at least one plastic component.

10. A composition according to claim 9, wherein the at least one plastic component is PVC.

11. A composition according to claim 9 or claim 10, wherein the pigment comprises from 1 to 50 wt% of the composition.

12. The use of a pigment according to claim 1, 2 or 3 for colouring glasses or plastics.

13. A method for the production of a pigment according to claim 1, 2 or 3, the method comprising the steps of:

- (a) intimately mixing SnO , SnA and M_2O_5 in an appropriate ratio to produce a reaction mixture; wherein A is S or Se; and wherein M is Nb or Ta,
- (b) heating the reaction mixture to a temperature of between 800 and 1100°C
- (c) cooling the product.

14. A method according to claim 13, wherein the reaction mixture further comprises one or more mineralisers.

15. A method according to claim 13 or claim 14, wherein the reaction mixture is heated under vacuum.

16. A method according to claim 13 or claim 14, wherein the reaction mixture is heated in air.

17. A method according to any of claims 13 to 16 further comprising the step of comminuting the product.

18. A method according to any of claims 13 to 17 further comprising the step of washing the cooled product with an acid.